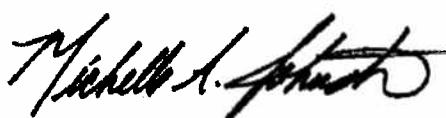


ANALYTICAL REPORT

Job Number: 280-1118-1

Job Description: PFC Analysis

For:
Dalton Utilities
1200 V.D. Parrott Jr. Parkway
Dalton, GA 30721
Attention: Ms. Dena Haverland



Approved for release.
Michelle Johnston
Project Manager I
3/19/2010 11:52 AM

Michelle Johnston
Project Manager I
michelle.johnston@testamericainc.com
03/19/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-1118-1

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Receipt

The following report contains the analytical results for four water samples received at TestAmerica Denver on March 6, 2010 according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 3.8°C. No anomalies were encountered during sample receipt.

PFC

Samples I-3 (280-1118-1), E-3 (280-1118-2), I-4 (280-1118-3) and E-4 (280-1118-4) were analyzed for PFC in accordance with SOP DV-LC-0012. The samples were prepared on 03/08/2010 and analyzed on 03/16/2010.

Due to matrix interference, samples I-3 (280-1118-1), E-3 (280-1118-2), I-4 (280-1118-3) and E-4 (280-1118-4) required dilution prior to analysis. Please note samples I-3 (280-1118-1) and I-4 (280-1118-3) were black in color and samples E-3 (280-1118-2) and E-4 (280-1118-4) were dark orange in color. The reporting limits have been adjusted accordingly. The dilutions were performed in order to protect the integrity of the instrument.

The internal standard recovery for 13C2 PFDA associated with QC batch 280-7440 was recovered above the control limits in samples I-3 (280-1118-1) and I-4 (280-1118-3). Matrix interference is suspected as the samples required large dilutions; therefore, corrective action was deemed unnecessary.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 280-6425 exceeded control limits for Perfluorotridecanoic acid (PFTriA). The recoveries are in control for this compound in both the LCS and LCSD. All associated samples are ND for this compound.

The method required MS/MSD analyses could not be performed on preparation batch 280-6425, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

The closing Continuing Calibration Verification (CCV) standard associated with samples in analytical batch 280-6958 exhibited a %D value out of range, biased high, for Perfluoroctane Sulfonamide (FOSA). This is an indicator that data may be biased high. As no detectable concentrations of FOSA are present in the associated samples, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

FOSA

Samples I-3 (280-1118-1), E-3 (280-1118-2), I-4 (280-1118-3) and E-4 (280-1118-4) were analyzed for FOSA in accordance with SOP DV-LC-0012. The samples were prepared on 03/09/2010 and analyzed on 03/12/2010.

All four samples required a second cartridge during the extraction procedure as the first cartridges clogged. Once the second cartridges also clogged, the remaining sample that did not pass through the cartridges were weighed and subtracted from the initial amounts. The surrogate was adjusted accordingly.

Due to matrix interference, samples I-3 (280-1118-1), E-3 (280-1118-2), I-4 (280-1118-3) and E-4 (280-1118-4) required dilution prior to analysis. Please note samples I-3 (280-1118-1) and I-4 (280-1118-3) were black in color and samples E-3 (280-1118-2) and E-4 (280-1118-4) were dark orange in color. The reporting limits have been adjusted accordingly. The dilutions were performed in order to protect the integrity of the instrument.

The method required MS/MSD analyses could not be performed on preparation batch 280-6580, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the FOSA analyses.

All quality control parameters were within the acceptance limits.

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-1118-1
SDG No.:			
Instrument ID:	LC_LCMS3	Analysis Batch Number:	7082
Lab Sample ID:	STD200 280-7082/8 IC	Client Sample ID:	
Date Analyzed:	03/12/10 03:10	Lab File ID:	PC30C11B71.d
GC Column: IonPac ID: 2 (mm)			
MANUAL INTEGRATION			
COMPOUND NAME	RETENTION TIME	REASON	ANALYST DATE
Perfluorobutanoic acid (PFBA)	2.17	Baseline	williamst 03/12/10 11:23
13C4 PFBA	2.36	Baseline	williamst 03/12/10 11:23
13C4 PFBA (IS)	2.36	Baseline	williamst 03/12/10 11:23
Lab Sample ID:	ICV 280-7082/10	Client Sample ID:	
Date Analyzed:	03/12/10 03:40	Lab File ID:	PC30C11B73.d
GC Column: IonPac ID: 2 (mm)			
MANUAL INTEGRATION			
COMPOUND NAME	RETENTION TIME	REASON	ANALYST DATE
13C4 PFBA	2.23	Baseline	williamst 03/12/10 11:25

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-1118-1

SDG No.:
 Instrument ID: LC LCMS3 Analysis Batch Number: 7440
 Lab Sample ID: MB 280-6425/10-A Client Sample ID:
 Date Analyzed: 03/16/10 11:22 Lab File ID: PC30C1608.d GC Column: IonPac ID: 2 (mm)

COMPOUND NAME		RETENTION TIME	MANUAL INTEGRATION		
			REASON	ANALYST	DATE
Perfluorohexane Sulfonate (PFHxS)		6.22	Assign Peak	Williamst	03/16/10 14:46

COMPOUND NAME		RETENTION TIME	MANUAL INTEGRATION		
			REASON	ANALYST	DATE
Perfluorohexanoic acid (PFHxA)		5.09	Assign Peak	Williamst	03/16/10 14:48
Perfluorohexane Sulfonate (PFHxS)		6.17	Assign Peak	Williamst	03/16/10 14:48

COMPOUND NAME		RETENTION TIME	MANUAL INTEGRATION		
			REASON	ANALYST	DATE
Perfluorohexane Sulfonate (PFHxS)		6.20	Baseline	Williamst	03/16/10 14:49
Perfluoroctane Sulfonate (PFOS)		7.63	Baseline	Williamst	03/16/10 14:49

COMPOUND NAME		RETENTION TIME	MANUAL INTEGRATION		
			REASON	ANALYST	DATE
Perfluorononanoic acid (PFNA)		7.62	Assign Peak	Williamst	03/16/10 14:50
Perfluoroctane Sulfonate (PFOS)		7.63	Baseline	Williamst	03/16/10 14:50

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-1118-1

SDG No.:

Instrument ID: LC_LCMS3

Analysis Batch Number: 7440

Lab Sample ID: 280-1118-4

Client Sample ID: E-4

3-17-10

Date Analyzed: 03/16/10 12:53

Lab File ID: PC30C1614.d

S. Chastagner

COMPOUND NAME

RETENTION

TIME

REASON

MANUAL INTEGRATION

Perfluorohexane Sulfonate (PFHxS)

6.20

Baseline

DATE

Williamst 03/16/10 14:51

Perfluoroctane Sulfonate (PFOS)

7.65

Baseline

ANALYST

Williamst 03/16/10 14:51

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-1118-1

SDG No.:

Instrument ID:	LC LCMS3	Analysis Batch Number:	7082
Lab Sample ID:	STD200 280-7082/8 IC	Client Sample ID:	
Date Analyzed:	03/12/10 03:10	Lab File ID:	PC30C11B71.d
GC Column: IonPac ID: 2 (nm)			

Compound Name	Retention Time	Manual Integration	
		Reason	Analyst
Perfluorobutanioc acid (PFBA)	2.17	Baseline	Williamst
13C4 PFBA	2.36	Baseline	Williamst
13C4 PFBA (IS)	2.36	Baseline	Williamst

Lab Sample ID:	ICV 280-7082/10	Client Sample ID:	
Date Analyzed:	03/12/10 03:40	Lab File ID:	PC30C11B73.d
GC Column: IonPac ID: 2 (nm)			

Compound Name	Retention Time	Manual Integration	
		Reason	Analyst
13C4 PFBA	2.23	Baseline	Williamst

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-1118-1
SDG No.:			
Instrument ID:	LC_LCMS3	Analysis Batch Number:	7440
Lab Sample ID:	MB_280-6425/10-A	Client Sample ID:	
Date Analyzed:	03/16/10 11:22	Lab File ID:	PC30C1608.d
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.22	Assign Peak	
Lab Sample ID:	280-1118-1	Client Sample ID:	I-3
Date Analyzed:	03/16/10 12:08	Lab File ID:	PC30C1611.d
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexanoic acid (PFHxA)	5.09	Assign Peak	
Perfluorohexane Sulfonate (PFHxS)	6.17	Assign Peak	
Lab Sample ID:	280-1118-2	Client Sample ID:	E-3
Date Analyzed:	03/16/10 12:23	Lab File ID:	PC30C1612.d
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.20	Baseline	
Perfluoroctane Sulfonate (PFOS)	7.63	Baseline	
Lab Sample ID:	280-1118-3	Client Sample ID:	I-4
Date Analyzed:	03/16/10 12:38	Lab File ID:	PC30C1613.d
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorononanoic acid (PFNA)	7.62	Assign Peak	
Perfluoroctane Sulfonate (PFOS)	7.63	Baseline	
GC Column:	IonPac	ID:	2 (mm)
GC Column:	IonPac	ID:	2 (mm)
GC Column:	IonPac	ID:	2 (mm)
GC Column:	IonPac	ID:	2 (mm)
GC Column:	IonPac	ID:	2 (mm)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	SDG No.:	Job No.:	280-1118-1
Instrument ID:	LC_LCMS3		Analysis Batch Number:	7440
Lab Sample ID:	280-1118-4		Client Sample ID:	E-4
Date Analyzed:	03/16/10 12:53		Lab File ID:	PC30C1614.d
GC Column:	IonPac	ID:	2 (nm)	
MANUAL INTEGRATION				
COMPOUND NAME	RETENTION TIME	REASON	ANALYST	DATE
Perfluorohexane Sulfonate (FHxS)	6.20	Baseline	Williamst	03/16/10 14:51
Perfluoroctane Sulfonate (FOOS)	7.65	Baseline	Williamst	03/16/10 14:51

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-1118-1	I-3	Water	03/04/2010 1200	03/06/2010 0900
280-1118-2	E-3	Water	03/04/2010 1200	03/06/2010 0900
280-1118-3	I-4	Water	03/04/2010 1200	03/06/2010 0900
280-1118-4	E-4	Water	03/04/2010 1200	03/06/2010 0900

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-1118-1

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method
280-1118-2	E-3				
Perfluorobutane Sulfonate (PFBS)	0.53		0.20	ug/L	DV-LC-0012
Perfluorobutanioc acid (PFBA)	0.17	J	0.20	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	0.75		0.20	ug/L	DV-LC-0012
Perfluoroctanoic acid (PFOA)	0.18	J	0.20	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)	2.4		0.30	ug/L	DV-LC-0012
280-1118-3	I-4				
Perfluorobutane Sulfonate (PFBS)	7.1		1.0	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	0.45	J	1.0	ug/L	DV-LC-0012
280-1118-4	E-4				
Perfluorobutane Sulfonate (PFBS)	1.3		0.20	ug/L	DV-LC-0012
Perfluorobutanioc acid (PFBA)	0.32		0.20	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	0.63		0.20	ug/L	DV-LC-0012
Perfluoroctanoic acid (PFOA)	0.16	J	0.20	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)	1.1		0.30	ug/L	DV-LC-0012

METHOD SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perfluorinated Hydrocarbons Solid-Phase Extraction (SPE)	TAL DEN	TAL-DEN DV-LC-0012	
	TAL DEN		SW846 3535
FOSA in Water (LC/MS/MS) Solid-Phase Extraction (SPE)	TAL DEN	TAL-DEN PFC -FOSA	
	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-1

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Williams, Teresa L	TLW
TAL-DEN PFC -FOSA	Williams, Teresa L	TLW

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: I-3

Lab Sample ID: 280-1118-1

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6425	Lab File ID:	PC30C1611.d
Dilution:	50			Initial Weight/Volume:	250 mL
Date Analyzed:	03/16/2010 1208			Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.41	1.0
Perfluorobutanoic acid (PFBA)	ND		0.49	1.0
Perfluorodecanoic acid (PFDA)	ND		0.39	1.0
Perfluorododecanoic acid (PFDoA)	ND		0.75	1.5
Perfluoroheptanoic acid (PFHpA)	ND		0.66	1.5
Perfluorohexane Sulfonate (PFHxS)	ND		0.35	1.5
Perfluorohexanoic acid (PFHxA)	ND		0.15	1.0
Perfluorononanoic acid (PFNA)	ND		0.87	2.0
Perfluoroctanoic acid (PFOA)	ND		0.49	1.0
Perfluorooctane Sulfonate (PFOS)	ND		0.67	1.5
Perfluoropentanoic acid (PPFA)	ND		0.55	1.5
Perfluorotetradecanoic acid (PFTeA)	ND		0.73	1.5
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.89	2.0
Perfluoroundecanoic acid (PFUnA)	ND		0.34	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	120		60 - 155
13C4 PFOS	113		45 - 130
13C4 PFBA	127		36 - 130
13C2 PFHxA	109		55 - 135
13C5 PFNA	126		54 - 132
13C2 PFDA	137	X	53 - 130
13C2 PFUnA	107		37 - 130
13C2 PFDoA	127		26 - 130
18O2 PFHxS	110		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: E-3

Lab Sample ID: 280-1118-2

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6425	Lab File ID:	PC30C1612.d
Dilution:	10			Initial Weight/Volume:	252 mL
Date Analyzed:	03/16/2010 1223			Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.53		0.082	0.20
Perfluorobutanoic acid (PFBA)	0.17	J	0.097	0.20
Perfluorodecanoic acid (PFDA)	ND		0.078	0.20
Perfluorododecanoic acid (PFDoA)	ND		0.15	0.30
Perfluoroheptanoic acid (PFHpA)	ND		0.13	0.30
Perfluorohexane Sulfonate (PFHxS)	ND		0.069	0.30
Perfluorohexanoic acid (PFHxA)	0.75		0.029	0.20
Perfluorononanoic acid (PFNA)	ND		0.17	0.40
Perfluooctanoic acid (PFOA)	0.18	J	0.097	0.20
Perfluooctane Sulfonate (PFOS)	ND		0.13	0.30
Perfluoropentanoic acid (PFPA)	2.4		0.11	0.30
Perfluorotetradecanoic acid (PFTeA)	ND		0.14	0.30
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.18	0.40
Perfluoroundecanoic acid (PFUnA)	ND		0.068	0.20

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	130		60 - 155
13C4 PFOS	112		45 - 130
13C4 PFBA	129		36 - 130
13C2 PFHxA	116		55 - 135
13C5 PFNA	128		54 - 132
13C2 PFDA	128		53 - 130
13C2 PFUnA	127		37 - 130
13C2 PFDoA	109		26 - 130
18O2 PFHxS	113		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: I-4

Lab Sample ID: 280-1118-3

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6425	Lab File ID:	PC30C1613.d
Dilution:	50		Initial Weight/Volume:	251 uL
Date Analyzed:	03/16/2010 1238		Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	7.1		0.41	1.0
Perfluorobutanoic acid (PFBA)	ND		0.49	1.0
Perfluorodecanoic acid (PFDA)	ND		0.39	1.0
Perfluorododecanoic acid (PFDa)	ND		0.74	1.5
Perfluoroheptanoic acid (PFHpA)	ND		0.65	1.5
Perfluorohexane Sulfonate (PFHxS)	ND		0.35	1.5
Perfluorohexanoic acid (PFHxA)	0.45	J	0.14	1.0
Perfluorononanoic acid (PFNA)	ND		0.87	2.0
Perfluooctanoic acid (PFOA)	ND		0.49	1.0
Perfluorooctane Sulfonate (PFOS)	ND		0.66	1.5
Perfluoropentanoic acid (PFPA)	ND		0.54	1.5
Perfluorotetradecanoic acid (PFTeA)	ND		0.73	1.5
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.88	2.0
Perfluoroundecanoic acid (PFUnA)	ND		0.34	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	119		60 - 155
13C4 PFOS	109		45 - 130
13C4 PFBA	127		36 - 130
13C2 PFHxA	109		55 - 135
13C5 PFNA	125		54 - 132
13C2 PFDA	134	X	53 - 130
13C2 PFUnA	125		37 - 130
13C2 PFDa	122		26 - 130
18O2 PFHxS	114		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: E-4

Lab Sample ID: 280-1118-4

Client Matrix: Water

Date Sampled: 03/04/2010 1200

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6425	Lab File ID:	PC30C1614.d
Dilution:	10			Initial Weight/Volume:	250 mL
Date Analyzed:	03/16/2010 1253			Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	1.3		0.082	0.20
Perfluorobutanoic acid (PFBA)	0.32		0.098	0.20
Perfluorodecanoic acid (PFDA)	ND		0.078	0.20
Perfluorododecanoic acid (PFDoA)	ND		0.15	0.30
Perfluoroheptanoic acid (PFHpA)	ND		0.13	0.30
Perfluorohexane Sulfonate (PFHxS)	ND		0.070	0.30
Perfluorohexanoic acid (PFHxA)	0.63		0.029	0.20
Perfluorononanoic acid (PFNA)	ND		0.17	0.40
Perfluooctanoic acid (PFOA)	0.16	J	0.098	0.20
Perfluooctane Sulfonate (PFOS)	ND		0.13	0.30
Perfluoropentanoic acid (PFPA)	1.1		0.11	0.30
Perfluorotetradecanoic acid (PFTeA)	ND		0.15	0.30
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.18	0.40
Perfluoroundecanoic acid (PFUnA)	ND		0.069	0.20

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	130		60 - 155
13C4 PFOS	111		45 - 130
13C4 PFBA	122		36 - 130
13C2 PFHxA	114		55 - 135
13C5 PFNA	125		54 - 132
13C2 PFDA	126		53 - 130
13C2 PFUnA	120		37 - 130
13C2 PFDoA	109		26 - 130
18O2 PFHxS	112		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: I-3

Lab Sample ID: 280-1118-1

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA In Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch: 280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6580	Lab File ID:	PC30C11B136.d
Dilution:	50		Initial Weight/Volume:	143 mL
Date Analyzed:	03/12/2010 1700		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.50	4.4
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sur)	62		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: E-3

Lab Sample ID: 280-1118-2

Client Matrix: Water

Date Sampled: 03/04/2010 1200

Date Received: 03/06/2010 0900

PFC -FOSA FOSA In Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch:	280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6580	Lab File ID:	PC30C11B137.d
Dilution:	10			Initial Weight/Volume:	222 mL
Date Analyzed:	03/12/2010 1705			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.064	0.56
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sur)	100		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: I-4

Lab Sample ID: 280-1118-3

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch: 280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6580	Lab File ID:	PC30C11B138.d
Dilution:	50		Initial Weight/Volume:	157 mL
Date Analyzed:	03/12/2010 1710		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.45	4.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sur)	82		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-1

Client Sample ID: E-4

Lab Sample ID: 280-1118-4

Date Sampled: 03/04/2010 1200

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch:	280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6580	Lab File ID:	PC30C11B139.d
Dilution:	10			Initial Weight/Volume:	234 mL
Date Analyzed:	03/12/2010 1715			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
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Perfluorooctane Sulfonamide	ND		0.061	0.53
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Surrogate	%Rec	Qualifier	Acceptance Limits
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MeFOSA (Sur)	109		37 - 130
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Quality Control Results

Client: Dalton Utilities

Job Number: 280-1118-1

Surrogate Recovery Report**DV-LC-0012 Perfluorinated Hydrocarbons****Client Matrix: Water**

Lab Sample ID	Client Sample ID	PFBA %Rec	PFHxA %Rec	PFHxS %Rec	PFOA %Rec	PFOS %Rec	PFNA %Rec	PFDA %Rec	PFUnA %Rec
280-1118-1	I-3	127	109	110	120	113	126	137X	107
280-1118-2	E-3	129	116	113	130	112	128	128	127
280-1118-3	I-4	127	109	114	119	109	125	134X	125
280-1118-4	E-4	122	114	112	130	111	125	126	120
MB 280-6425/10-A		122	114	107	130	104	124	100	57
LCS 280-6425/8-A		112	104	105	115	92	115	101	76
LCSD 280-6425/9-A		125	115	110	127	97	112	109	76

Surrogate	Acceptance Limits
PFBA = 13C4 PFBA	36-130
PFHxA = 13C2 PFHxA	55-135
PFHxS = 18O2 PFHxS	61-130
PFOA = 13C4 PFOA	60-155
PFOS = 13C4 PFOS	45-130
PFNA = 13C5 PFNA	54-132
PFDA = 13C2 PFDA	53-130
PFUnA = 13C2 PFUnA	37-130